1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

[P.115]

Chapter V

MALTA A.D. 1800 to 1914

A. Economy and Trade

175*
43

During the last years of administration by the Knights, bankruptcy threatened the Order. In so far as one may think in terms of a Maltese 'economy' for that period, one may also note the appearance, even then, of the fundamental economic problems of Malta. During the nineteenth century, a slow change from a considerable dependence on extra-territorially derived wealth to overwhelming reliance upon it made the overall instability of the economy obvious to all. Equally important in many ways, was the growing need for reconciling external economic balance with the claims of a rapidly rising internal demand. This latter problem, now sufficiently familiar to us all, was too novel to be recognised during the nineteenth century. Moreover, in the case of Malta it was, and to some extent still is, obscured by the nature of the invisible income so long drawn from outside.

At the end of the eighteenth century, Malta drew wealth from two major external sources. Some was derived from visible trade, but: 'the trade of Malta previously to the invasion of the French in the year 1798 was inconsiderable... (it) consisted chiefly in the exportation of cotton twist, the produce and manufacture of the Island' (1). Nevertheless Boisgelin (2) estimated that annual exports of spun cotton to France alone were worth in the same period 2,750,000 *livres*, while Ball (3) in 1801 valued exports of cotton twist and goods at £500,000. These exports, products of indigenous agriculture and manufacture, paid for only a fraction of the Islands' imports. These imports included basic supplies of timber, vegetable oils, simple manufactures and, above all, grain, the domestic production of which supplied only about one-third of the need. Over and above these staple commodities for general consumption were the imports of a great range of superior consumer goods for the Knights and of capital goods for the equipping and maintenance of the Garrison. These were paid for out of the second main source of wealth, the foreign income derived from the Order's mainland estates, from the taxation of the Commanderies, and from special grants by irregularly sympathetic Kingdoms and the Papacy.

A further part of what we may term 'Negotiable Wealth' went to the Order's 'Internal Revenue Account' to pay for administrative costs, for 'contract' services such as fortification building, and also for social and welfare services such as the Hospital, almhouses and medical care (4). This element may be considered in present-day terms to have been expended on the wages and salaries of Maltese employees of the Government and Defence Departments, and therefore indirectly contributed to payments overseas for basic imports. A third but very minor source of 'foreign currency' was that of civil port activity and mercantile profit. Shipping dues made a small contribution, partly in foreign currency, to the Internal Revenue.

Thus, even at this early date, a complex inter-relationship existed between various elements in the Maltese economy. During the whole of the subsequent period the real distinction between the three main elements of the economy, the Internal Revenue Account, the Balance of Payments or Negotiable Income, and the National Product, became greater but unfortunately not fully recognised. The essence of later change lies in the altering relative importance of these main elements and of their constituent parts.

By 1798, the Internal Revenue Account in so far as it can be isolated, was showing weaknesses resulting from increased 'administrative' expenditure. The Balance of Payments was showing a visible annual deficit of 4,000,000 *livres* (5), and this was becoming hard to meet from the income of the Order's non-Maltese estates. The National Product is impossible to assess except in the broadest terms but may be analysed as follows. First there was the production of agri-

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

#175
.93

culture and fishing almost entirely, with the exception of the bulk of the cotton crop, for home consumption in the largely self-sufficient rural community. Secondly, cotton spinning and weaving on a domestic scale which contributed most of the manufacturing production. The third item was made up of wages and mercantile profit on services supplied to the small amount of civilian shipping. A fourth item of rents and profits may be presumed to be very small. Lastly and most important were the peculiar services rendered by the Order to Christian Europe, paid for in foreign income and finally dispersed in wages and salaries for goods and services supplied by the Maltese population, particularly by what we may term the *entourage* of the Garrison.

The last years of the eighteenth century witnessed the complete destruction of the old basis of Internal Revenue and Externally Derived Income, as well as wiping out that part of the National Product which was a consequence of the function of the Order. From 1792 onwards the Knights' estates in France and French-dominated Europe were confiscated and when, in 1798, French forces occupied the Islands, the Order died, in fact if not in name. In 1800, an abject Spain, at the behest of France, prohibited the importation of cotton yarn and in Catalonia the last important Maltese export market was lost.

The period of British occupation and rule which commenced in 1800 was therefore a period in which the existing basic economic situation had to be served by new processes of wealth-getting based on new values. The general economy revived rapidly in embryonically new forms but in the special economic circumstances of the Napoleonic Wars. Between 1800 and 1813 British official expenditure of some £433,000 replaced that part of the Order's foreign income which had been functionally expended. Other compensation came from a relatively new source of foreign income, the personal expenditure of a new type of garrison and a foreign element numbering up to 20,000 at peak. This particular contribution to Malta's need for 'foreign currency' was the germ from which was to grow the greatest single source of Negotiable Wealth. The differential between the value of this type of income derived from outside the Islands and the value of the commodities, increasingly imported in type, set against it, started to become one of the chief elements in National Product as mercantile profit, in Negotiable Wealth - when earned by service industries, and in Internal Revenue through taxation (6).

The decline in the export of cotton was never arrested and the statement in 1812 that cotton twist was a commodity unsaleable abroad was corroborated by time (7). This loss of the second traditional source of foreign income was largely made up by a boom in civil port activity and entrepôt trade. This replacement however implied a further swing towards dependence on external economic activity, and an increase in the proportion of the National Product concerned with services rather than with local material resources.

In 1801 Britain declared Malta a Free Port and, in a series of Orders in Council dating from 1807, the Islands were given an especially favoured status for trading in the Mediterranean. Conceived as strategic economic measures to break the Continental Blockade, these Orders had the incidental effect of stimulating activity at Valletta. Since Napoleon's economic measures were anachronistically mercantilist in operation, and since each addition to the politico-economic confusion, whether the American Embargo Act or war with Turkey, merely intensified the channelling of trade through British maritime controls, Malta flourished. After 1807, the island of Malta became the focal point of a trading system artificially warped and distorted by war. In 1808 two-thirds of cargoes consigned from Malta went to the Levant and Egypt, in 1809 over one-half to Trieste. By 1810 over three-quarters of them were destined for North Adriatic ports and this proportion was maintained for some years. These cargoes consisted almost entirely of British manufactures and Colonial goods. In return, from the Levant came commodities mainly for war-booming London; fruit, oil and wine, fine woods, drugs, carpets, etc. From the Adriatic came raw materials and naval stores such as timber, hemp, pitch and tar, flax, iron, linen, mercury and verdigris as well as glass, wine and tobacco (8). This flood of goods overwhelmed the limited warehouses of Malta and resulted in

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

175*
43

the springing up of 60 British and over 20 Maltese entrepreneurial businesses. It is not surprising that the Royal Commissioners were able to say in 1812: 'The Commercial part of the Community we found daily increasing in prosperity and opulence; fully sensible of the peculiar advantages derived from the protection of Great Britain; anxious only that this Protection shall on no future occasion be withdrawn' (9). Prophetic words these; from this time onwards, port activity of one sort or another rather than the *corsos* was to be of direct importance.

Internally also there was relative prosperity: 'the great mass and body of the People were happy and contented: warm in their professions of attachment to Great Britain' (10). External boom was associated with internal inflation. Many farmers turned from cotton growing to the production of grain and foodstuffs, the prices of which soared in prosperous Valietta. Many artisans, weavers and spinners found employment in the port services. The decay and near collapse of the old *Università*, the cheap grain agency, was obscured, except for the very needy, by the short-term benefits following commodity shortages, rising prices and unevenly increased incomes.

From this period onward, in the harbour areas, there developed mercantile enterprises and a large labour force, all concerned with entrepôt trade, with trans-shipping, handling and re-export of almost entirely non-Maltese goods. This port activity began to contribute directly, and on a significant scale, what may be termed foreign currency in the form of commercial profit. Secondly, the payment of tonnage dues almost entirely by foreign shipping introduced a special element of external contribution to the Internal Revenue of the Administration. Thirdly, the wages of the civil port labour-force were, directly or indirectly, also derived from non-Maltese sources.

The boom of the Napoleonic Wars, in this sector of the economy, was unstable and short-lived in that it owed its strength to distorted trading conditions. Nevertheless the new entrepreneurs attributed the post-war decline to a British Colonial policy adjudged to be both *laissez faire* and restrictionist in character rather than to the inevitable termination of artificially favourable wartime conditions (11). This point is of importance because throughout the later history of Malta the same error was repeatedly made. Wealth, and in this instance mainly foreign-derived wealth, based on entrepreneurial activity must always be fluctuating in fortune, but it was the booms which were assumed to be the rightful norms while the intervening lower levels of prosperity were regarded as 'outrageous fortune'. One of the tragedies of Malta is that this attitude was strengthened by periodic coincidences of favourable circumstances, and Malta has come to expect such benefits almost as of right. At this early period, we can see too the failure to seize opportunities during periods of prosperity for investment in improved port facilities and in the manufacturing and agricultural sectors.

A post-war decline in externally inflated commerce was accompanied by a drop in direct and indirect Imperial expenditure. Britain had been primarily concerned with the beating of Bonaparte and, with certain strategic and constitutional provisos, was concerned with a return to the *status quo*. The main garrison and fleet departed, leaving behind in 1813 Governor Maitland, his 35 English administrators and a small naval and military force. British economic interest became centred on balancing the Internal Revenue account. The Treasury was in a parlous state and the *Università* heavily in debt. The Government Revenue Account was soon put on a sound basis but the loss of much external wealth severely affected the Islands' population. The fall in commercial and urban prosperity pricked the bubble of internal inflation and also reduced the level of non-agricultural employment. The countryside suffered considerably. In 1836 (12) it was reported that agricultural commodity prices had fallen on average by one-half since 1827 but that rents, the level of which were kept up by competition for land, fell only by one-quarter. By the later date cotton spinning and weaving, almost entirely for a depressed local market, were the only significant manufactures. Others were small and localised; salt and pottery making at the village of Birkirkara, cane work in Siggiewi and tanning in Tarxien. The fishing industry was so ill-developed as to make the Commissioners wonder whether fishing was even feasible.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

175*
43

Part of the economic trouble resulted from the shortage of Maltese personnel capable or trained in the arts of public finance or in the exercise of private economic initiative, a natural result of the long period of paternal autocracy under the Knights. The position was improved neither by the lack of confidence felt by the British Administration in Maltese executive experience, nor by the attitude exemplified by Wellington's statement before the House of Lords (13): 'We hold it as an important post, as a great military and naval arsenal, and as nothing more'.

Nevertheless changes were in train. Paralleling the constitutional developments outlined in Section B of this chapter, and in symbiotic association with the demographic trends considered in Chapter VI A, the interplay of internal and external economic forces produced new economic patterns. In general, as the needs of British Imperial Policy, more variable than those of the strangely ossified Order, became greater, so Malta became more exposed to changes in world circumstances. Similarly, as commerce in its more rarified forms became dominant, world trade and business cycles were more and more closely reflected in the Maltese economy, evidence of growing integration into global conditions. An increased general sensitivity became characteristic of a more sophisticated but top-heavy structure. Under all lay the declining relative importance of that wealth based on indigenous resources and industries.

Between 1820 and 1854, the Maltese economy reflected slow world and regional adjustments to peace and to the growth of an international economy in which Britain led the way. Technological advances but slowly exerted economic effects. This was still the 'Iron Age' and of steampower in an embryonic form. Not until the 1850's, coinciding with a second phase of trade distortion and reawakening imperial interest in the Mediterranean both associated with the Crimean War, came Bessemer's Convertor and the 'Steel Age'. The Maltese harbours still lay in a great inland lake, affairs on the shores of which alone were important. In 1827 (Battle of Navarino) the British fleet was based on Malta; in 1832 an Admiralty packet service was established and in 1839 the P. and O. and East India Companies used Malta as a calling port on their Egypt and Levant runs. The Crimean War itself demonstrated the regional limitation of Maltese shipping importance, and in the 1860's under one-half of shipping tonnage entered and cleared was extra-Mediterranean in character and most of that was British.

Even so, changes occurring before the middle of the nineteenth century were great enough to produce a sharpening of the old distinction between the 'Old Malta' of the villages, of the old nobility centred on Mdina, and the 'New Malta' of the harbours. The former was too parochially ignorant, the latter too centrifugally minded to allow of stable and regular development especially during a period of rapid external change.

In 1869 the Suez Canal was opened and the Mediterranean became a world highway. As the figures for shipping tonnages entered and cleared in Malta indicate (Fig. 30), and as also evidenced by the internal facts of migration and demography, land settlement and abandonment, employment and occupation, the Maltese economy entered a special phase after 1870.

Until this time, Malta's externally-based civil economy developed at average world rates rather than at the higher speeds found in Northern Europe. After 1870, shipping business and port activity in Malta increased more rapidly than did world trade and for two decades enjoyed a prosperity of which the Napoleonic and Crimean Wars had provided but a foretaste. Entrepôt trade with attendant commercial profits boomed and port employment benefited particularly from the increasing bunkering trade.

The Internal Revenue Account had remained based on the recommendations of specific and direct taxation made by the 1836 Royal Commission. Generally increasing commercial prosperity and the growing population, together with Imperial expenditure, so raised the level of consumption that import duties on food and drink made up over 40 per cent. of Government Revenue. Tonnage dues, and legal imports increased *pari passu* with port business. Only during two of the world slump years of the 1880's did rising expenditure produce current

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

*195 43 revenue deficits. In 1878 a report by Rowsell on the fiscal situation in Malta is particularly indicative of buoyant conditions, but also indicated the smallness of revenue reserves (14).

The superficially favourable Internal Revenue situation and the fall in unemployment and migration, particularly after 1870, were however paralleled by a growing unbalance in the National Product. Once again there occurred a fortuitous coincidence of favourable external circumstances. The Suez Canal was opened in 1869 and fleets of small steamships plying the new route to the Indian Ocean needed frequent bunkering. The Mediterranean littoral itself became the scene of increased economic activity. The same industrial surge in northern Europe, and in Britain in particular, which built the ships and the Canal, needed foodstuffs and raw materials and provided the capital and equipment for their production. Not only from the Mediterranean littoral, Australia and the Orient, but also from the Russian and Danubian Black Sea ports came the ships which converged on the Malta Straits. Many regions suffered from the downward movement of commodity prices which occurred after 1873. Malta was little affected by commodity price-changes in that her commercial activity was strictly concerned with services, and the Islands reaped the benefit of increased volume of traffic. By 1882, 80 per cent. of the recorded tonnage using the harbours dealt with extra-Mediterranean traffic. The same year witnessed the nineteenth century peak of British steel exports, the Black Sea grain trade was still building up and bunkering business in Malta reached its height. During the 1880's Britain was in virtual control of maritime affairs and the complicated pattern of a relevant part of tramp movement may be summarised thus (15):-

> '... steamers go a round voyage, part of which is in ballast, taking coal, say, to the Mediterranean and then grain from the Black Sea to Hamburg and home... The course of the export trade in coal is influenced in some degree by the return freight... modified by favourable harvests or otherwise in different parts of the world, and the consequent varying sources of our food supplies'.

*195 43 505 In this statement may be found an explanation both of the reason for Malta's Golden Era between 1870 and 1890 and for its impermanence. Before 1890 events conspired to produce commercial opportunity. After 1890 Europe turned more and more to the New World for grain and the volume of Black Sea trade slowly declined. Those ships still in the trade together with those using the through Mediterranean routes grew larger and more power-efficient and therefore less in need of frequent bunkering stops. Competition from other ports increased as the Mediterranean political pattern became simplified by effective French control of much of North Africa, by the enforcement of stability on Egypt and by Italian unification. The sheer momentum of nineteenth century economic progress carried centres such as Algiers, Naples, Alexandria and Barcelona, all with developing hinterlands and facilities, out of the class of ports pure and simple. By 1895 shipping activity in Malta had dropped back to the level of 1880 and thenceforward it developed at a slower rate than did world trade as a whole. The Maltese were once more sharply reminded that the possession of a good natural harbour was not enough in itself permanently to attract commercial interest.

Since detailed statistics of trade, other than that in dutiable goods, were not recorded before 1910 it is difficult to measure directly the real significance of port activity and trade either during the boom or in more normal conditions. The Blue Books are of some analytical aid, and that for 1891 suggests that the total value of what are termed re-exports was £38,000,000 of which only 3 per cent. by value were actually landed in Malta, the remainder proceeding to their ultimate destinations in the same bottoms. For further information we must turn to an analysis of the other elements in the National Product.

*195 43 464 161 The most useful records at our disposal are the Census recordings of occupations although even here there are considerable deficiencies. The gross working population (unemployment figures are not available before 1921) shows trends which conform to those of net population increase (Fig. 31) but particularly noteworthy is the numerical loss due to a decline in the female working group.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

group. From 1851, when it composed 45 per cent. of the total, this element steadily decreased, absolutely and relatively. This general trend resulted from normal sociological changes consequent on a maturing of the whole economy and from the growing dominance of male employing service industries. At the same time, the preponderantly feminine cotton industry was steadily declining (see pp. 123 and 124).

One of the most significant indicators of economic change is that of male employment in agriculture (Fig. 31). During the first century of British rule, agriculture played no part in the economic expansion which was in train. Agricultural prosperity became a function of general prosperity and therefore to a large extent mirrored external fortune. Employment in the industry on the other hand, except for the shortlived cotton growing boom of the 1860's during the American Civil War, varied inversely with general economic activity. In Malta, as in most countries, it would be true to say that rising profits in farming benefited existing producers but failed to attract net incomers. On the other hand, population growth, the cessation of employment elsewhere, obstacles to emigration or even forces producing a return of migrants all periodically forced some workers back on to the land. Thus in the years between 1851 and 1871 while the population was growing more quickly than the slow but accelerating commercial activity, sheer population pressure and migration trends (16) forced the level of male agricultural employment from c. 7,000 to c. 9,000. During the Golden Years and the subsequent period of large-scale dockyard and public works construction numbers fell once more to c. 7,000 in 1901. Later stagnation in commerce and a decline in constructional work culminating in a severe depression (necessitating a Royal Commission) were marked by an increase in the number of farmworkers to 8,500 in 1911. These general fluctuations can be corroborated by reference to farm family histories and by changes in the availability of land. Behind the overall absence of numerical change and of those of secular variations we may discern some of the fundamental features of Maltese agriculture. By the middle of the nineteenth century, the better land had already been occupied by as many farmworkers as contemporary productivity could properly support. This number remained more or less constant, first because the economic and social climate was not propitious to the labour saving innovations which were sweeping over Europe, and secondly because the intake of land from waste did little more than compensate for losses elsewhere. We have a picture of a technically static, status declining and credit starved industry which from time to time lost some of its most vigorous and enterprising young workers or gained a flood of generally poor and semi-skilled labourers.

More true of Malta than of Gozo, this picture must be modified to accommodate regional differences and changes. Already in the eighteenth century, as we have noted, a cleavage existed in Malta between the *urbs* around Valletta, the Old City of Mdina-Rabat, and the rural communities. By the middle of the nineteenth century, this had developed into an embryonic form of the present division into urban, suburban and rural communities (Fig. 36). The social and demographic reasons for and implications of this are considered elsewhere (Chapter VI A) but the internal economic factors need present consideration.

Before the building of the railway in 1881, the tramways in 1905, and the later motorable roads, communication between villages and between country and town was relatively limited. Within those areas physically closest to what had now become the Grand Harbour the attraction/repulsion effects on agricultural employment were most strongly felt. On the eastern urban fringe, in the Żabbar area, these fluctuations were very violent and indicative of too complete reliance on two simple forms of economic activity, dockyard work and farming. On the western fringe the expanding economic and political functions of the nuclear *urbs* overwhelmed old villages such as Birkirkara and created new townships such as that of Hamrun in a more complex urbanisation (Figs. 32 and 39). Fluctuations in agricultural employment still occurred but these were less important than the steady decline in the total.

The changes outlined above proceeded slowly but at an accelerating rate during the second and third quarters of the nineteenth century. By 1871 popula-

[Text Continues on P. 123]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

tion increase had overtaken economic growth, and in particular had forced an expansion of the cultivated area. As still evidenced in the landscape the farming frontier moved into the more difficult lands of the north-western uplands and on Mellieha Ridge and intensified effort on the floodable lands of Wied il-Ghasel. The *Societa Economico-Agraria* in a series of reports and in the *Gazzetta Agraria Maltese* expended much effort during this time in studying the possibility of reclaiming land hitherto uncultivated (17).

From 1871 onward non-agricultural employment became absolutely dominant. The significance of this change lies in the fact that indigenously rooted manufacturing, viz. cotton working, died completely and the largest sector of National Production became entirely dependent on external wealth. A closer examination of one of the crucial periods, the decade 1871-81, illustrates the regional changes which were taking place. The male working population increased suddenly from 40,698 to 46,116. The greatest rate of increase occurred in the urban area where the number of male workers rose by 17 per cent, while the population increased only by 9 per cent. The suburban trend was intermediate between this and the rural situation where the employment rate rose by only 8 per cent, - less than 800 men. The greatest suburban rise occurred mainly in the following decade. Functionally the largest increase occurred in the group of Porters, Carriers and Coalheavers - 100 per cent., while the commercial group increased by 27 per cent, and the numbers in the building trade actually declined slightly. During this decade and most of the next the greater part of economic growth resulted from increased port activity. At one end of the social scale there would seem to have been an actual migration of nobility and gentry from the 'unfashionable' old centres into Valletta, while in the capital the number of 'gentry' increased rapidly with each census as successful *nouveaux riches* acquired estates and a higher status. Bankers, merchants and dealers increased by 8 per cent., and in ever descending and widening social circles, shopkeepers by 11 per cent, and petty vendors by 25 per cent. The Transport group, an advanced stage to that of Porters, increased in number even more astonishingly, by 139 per cent, in Malta as a whole and by 318 per cent, in the rural areas.

As Table 23 indicates, the economic revolution was becoming more complex and the sphere of influence of Valletta and the port became more extensive.

Table 23. Percentage change in the male working population.

Location	1861-71	1871-81	1881-91
Urban	+8	+17	-4
Suburban	+0.7	+12	+5
Rural	+9	+8	+1

By 1891 the port boom was over but Government expenditure and Imperial military spending continued to rise. Commerce came more to mean retail trade and dockyard work more associated with bunkering and naval servicing. Coal-heaving, civil and military, engaged 2,075 men by 1891. By 1905 over 9,000 men were employed by the Naval Establishments, half of these on constructional work. On the other hand, the build up of the garrison, naval and military ended in 1902 and the Royal Commissioners in 1911 estimated that 'the reduction of the garrison must mean a loss to the industries of Malta of not less than £400,000 a year'.

During the closing years of the nineteenth century there was finally established in Malta the complex economic pattern which still fundamentally underlies life in the Islands. The greater integration of economic life, a high level of urban and dockyard activity and the improvement of internal communications resulted not in continued movement into the *urbs* but in the growth of the suburbs and the strengthening of the non-agricultural element in the rural areas. Thus of the coalheavers of 1891, 80 per cent. lived outside the port complex and 44 per cent. in the outer ring of casals Qormi, Luqa and Zejtun. The labour

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

catchment area of the port was extended to include most of the east and centre of the island.

The decline in indigenously rooted economic activity is typified by the fortunes of the cotton industry, which after two millennia of regional fame finally succumbed to the stresses of the new world into which Malta had been introduced. Statistical information is limited to brief mention of employment in the industry in the Census Reports of 1851 and later. General material, often untrustworthy, may be gleaned from travellers reports. Field work (18) carried out during the last four years has given us the evidence of the few surviving cotton workers who can recall the character of the industry as it was in its moribund latter days.

In 1861 there still remained almost 9,000 workers occupationally described as spinners and weavers and some 200 beaters and dyers. Ninety-six per cent. of the total were women, and male labour was generally used only in the final stages of cloth preparation. The industry included all processes from the growing of indigenous short staple annual cottons to the manufacture of cloth. The actual operations however were carried out almost entirely by individual workers in their own homes and were linked only by merchants specialising in this trade. In many cases merchants advanced seed to the farmers on a crop-sharing basis. In all cases they bought the picked lint and then distributed quantities by weight to 'out-work' spinners. These would return the yarn, which had been prepared by primitive traditional teasers and spinning wheels, and were paid by weight and fineness of the yarn. The village merchant would store the yarn until he received an order for cloth and would then make similar contracts with domestic weavers.

That this type of 'out-work', domestic industry survived late into the nineteenth century is a commentary on the social and economic needs of the poorer village and rural classes. Much of the female labour described as occupied in cotton-working was often only seasonally thus employed. The 1861 census taken in the autumn in contrast to the usual spring period clearly illustrates the seasonal change of work between spring harvesting and tillage in the fields, and the home use of the spinning wheel after the autumnal harvest. Tariffs and quotas on trade in lint and yarn were deliberately employed to protect in the domestic market this last employment reserve of the 'lower classes'.

Finally however tradition and protection proved powerless to prevent change. In the harbour area the decline was rapid after 1851, alternative employment and the impact of trade virtually killing the indigenous cotton industry by 1901. Away from the conurbation the same factors operated more slowly but still inexorably. Żebbuġ and Rabat, centres of old Malta, were the last to succumb. The former, a great centre of mercantile and ecclesiastical wealth derived from cotton, remained relatively important for weaving until 1914. In Rabat, the suburb of the old capital, a craft industry still survives. With the coming of new opportunities for wealth gaining, not in trade but in mass employment in the dockyards and towns, the last *raison d'être* of the cotton industry disappeared. It survived longest in the cotton growing regions of the west and in the most Maltese of the old villages of the Centre and South. With its disappearance died the last considerable skilled employment of traditional resource wealth.

Changes such as these characterised the Maltese economy during the nineteenth century. World War I marked the end of an epoch during which the evaluation placed on Malta by Britain was sometimes questioned but never invalidated. The Maltese economy as it existed in the opening years of the twentieth century had reached the logical culmination of a specialised development which had been under way for centuries.

:: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

433 458 The main relevant conclusion was unmistakably ominous: 'Government expenditure has more than made up for that of the Knights, and has diverted more of the labour of the population to the service, direct or indirect, of the foreign government which applied it to purposes entirely Imperial and unconnected with the special interests of the colony. Doubtless this expenditure has led to immediate prosperity... but the basis of this prosperity is artificial and precarious' (6). It is possible to argue the degree of validity of the third premiss of the first clause but the general truth is undeniable. This general picture is so clear that in this particular chapter attention will be focussed only on some aspects of the Maltese economy as it has developed during the last 50 years.

43 The changing character of Maltese Trade is well evidenced in the annual reports of the Customs and Port Department. Before World War I, Malta was still of some importance in Mediterranean transit trade, partfcularly for goods destined for North African and Levant ports. Between 1910 and 1922 the annual average weight of such merchandise handled was 17,000 tons (7). This activity almost disappeared during hostilities and after a short post-war boom settled down at a new low level handling only some 3,000 tons of merchandise. In part this was due to the elimination of the important German and Austrian connection which, in a Report published in 1919 (8), was the subject of much hostile Maltese comment. More important was the fact that the gap thus left was not filled by other foreign or local interests. The Maltese writers of the 1919 Report were not able to obtain their desire 'to have a company formed by a few merchants, who would thus teach Maltese capitalists that the investment of moneys in industries and especially in shipping is more profitable and better for the Islands and for the capitalists themselves, than the investment in doubtful securities or in reckless speculation'. The fundamental difficulties of expanding port [504] activity have remained. Malta, for all the grandiloquence of the name 'Grand Harbour', has until very recently possessed but poor physical facilities for handling shipping. All vessels of over 2,000 tons have had to be worked by lighter, and civil repair facilities as well as warehousing have been extremely limited. In that the needs of the Fleet have been paramount this is understandable; the consequences have been deplorable. The absence of enthusiasm for [454] local investment of Maltese capital has been equally inhibiting. There survives, even intensified during the 1930's, a traditional feeling of insecurity which was succinctly noted by a banker giving evidence before the 1911 Commission: 'There is plenty of money in the Island... there is not much trust, I think' (9). Even now, while the rate of saving in Malta is very high - c. 14 per cent. of total personal income, too large a proportion of the savings are invested abroad - some £70 millions. Given this basic insecurity, which still appears in conversations with business men and which is so deeply rooted as to be very difficult to remove, development is difficult. Moreover, since the Maltese for an island [228] people are singularly non-maritime in character, and, in conditions no more difficult than in many other parts of the Mediterranean, have almost ignored the fishery industry (10), there exists no traditional basis for marine affairs. In these circumstances the value of the handing over of the Naval base to British civilian firms, and the policy of attracting foreign (mainly British) manufacturing concerns, thus making available both facilities and most of the capital, is on economic grounds indisputable.

439 457 One other aspect of port and trading activities must be examined, the nature and balance of imports and exports. The changing character of world trade in the first place has vitally affected the nature of Malta's entrepôt activity. By 1956, the value of re-exports had reached over two and a half million pounds, of which one and a half million represented mineral fuels and lubricants, mainly aviation spirit and turbine fuel (11). This is still the pattern today. Of Malta's transit trade in re-exports, by far the biggest proportion is concerned with supplying the Garrison in its new and more mobile form. The imbalance between retained imports and domestic exports remains essentially similar to that observed very much earlier and is best examined in conjunction with other economic elements.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

per cent. are children under 14 years of age. The number of whole-time farmers, 8,100, is now smaller than the group of part-time agriculturalists - 8,946, and in its age-composition differs significantly from the total population - 48 per cent. are aged 50 years or more (1948 - 33.8 per cent.) as compared with 31 per cent. for the Islands as a whole.

The relatively small and, until very recently, declining size of the full-time farming population, and its rapid ageing, suggest a decline in the importance and status of agriculture. The implications of these figures are discussed elsewhere but it is worth noting that the agricultural areas are still inhabited by over 126,000 persons most of whom draw some real income from the land in amounts which may often be small per capita but which observation suggests are large in total.

The total value of the recorded crop product is estimated at some £2.27 millions. From observation in Malta and experience elsewhere one can suggest that is under-estimated by a fraction of the order of 10 per cent. (See p. 10, - Essential Statistics - for further information.)

The combined value of crop and livestock products is estimated at almost £6,000,000. The income accruing to the cultivators is distributed in such a multiplicity of ways in such varying amounts that no useful estimate of average per capita income can be made. Of the disbursements of some £3 millions, an amount of the order of £2½ millions is expended on imports, notably of fodder and store cattle. Earnings of foreign currency amount to approximately £300,000, almost half of which derived from potato exports. This imbalance between imports and exports in the agricultural sector appears even more striking when one remembers that F.D.T. imports of over £9,000,000 make up 35 per cent. of the total Maltese import bill.

The efforts of the 9 per cent. of the employed population engaged in agriculture are already considerable but the needs of Malta are great. With no known physical resources of any size other than the land, it becomes of vital importance that farming productivity should be raised even further and that special effort is directed towards a legitimate degree of self-sufficiency in agricultural products. Much of the analysis that follows this introduction must be considered in the light of present and future needs.

REFERENCES

1. et passim Census of Agriculture, 1950. Malta. 1956.

159 barley (xghir) fluctuate but cake-feed is all bought from
432 fodder agents. Milk production varies with season, being
234 at its peak in the Spring. The price given by the M.M.U. changes accordingly to the extent of a few pence per gallon. On the basis of an average feed programme one can get some idea of the gross profit margin on which Pawlu is working, the absence of any allowance for labour costs being noted.

*159 A sample feed programme with daily costs for one cow
234 yielding about three gallons:

● 43

	s	d
3 rtal xghir (barley-bran)	1	- 4
8 rtal cake.....	3	- 6
5 rtal sulla (silla).....	1	- 4
8 rtal beans (¼ tomna)....	5	- 0
1 basket prickly pear.....	1	- 0
½ basket straw.....		6
	12	- 8d

Selling the three gallons at 5s 6d per gallon (see above) brings in 16s 6d per day, leaving a profit on the one cow of 3s 10d.

A sample feed programme with daily costs for 46 goats yielding about ten gallons per day:

	£	s	d
3 tmien (48 rtal) beans....	1	- 10	- 0
1 tomna xghir (barley).....		6	- 0
4 bundles sulla (silla)....		5	- 0
Furrejnn (green barley)....		5	- 0
	2	- 6	- 0

Selling ten gallons per day at some 6s per gallon thereby brings Pawlu a further profit of 60s minus 46s, or 16 shillings. This, together with the 3s 10d from each of his two cows, amounts to a net income of approximately 23/8d per day.

*159 Unlike most of his fellow herdsmen in both Islands,
156 Pawlu is fully aware of the relation between feed programmes
234 for livestock and milk yields (B/379). He does not share
232 the common view that "The more the feed the more the milk". He is also well aware of the economics of his situation as described above and, as seen, his aim is to cut the costs of fodder by producing more on his own holding and thereby increase his profit margin on milk sold. This is a most widespread feature among Maltese and Gozitan herdsmen today. But Pawlu goes further than most in that he is conscious of the need for a 'balanced diet'. Not only does he carefully regulate the types and quantities of feed which he gives but he also follows the latest researches of the Department of Agriculture, especially that of Haesler (B/252) and others working on this and similar topics. The average illiterate Maltese farmer tends to dismiss the statements and efforts of such experts as "No good for Malta, and

*159 433

3 rotal	barley bran	1s. 4d.
8 "	cake	3s. 6d.
5 "	sulla	1s. 4d.
8 "	beans	5s. Od.
1 basket	prickly pear	1s. Od.
½ "	straw	6d
		12s. 8d.

- Sample daily feed for 46 goats yielding c.10 galls.

48 rotal bean	£1. 10s. Od.
16 " barley	6s. Od.
4 bundles sulla	5s. Od.
Furrajna (green barley)	5s. Od.
	£2. 6s. Od.

[434] - Daily feed costs thus average £2.18.8 and the income from milk £3.16.6. Profit, making no allowance for labour costs is 17/10d. daily, varying slightly with milk prices.

*159 234 G. Husbandry.

(i) - Does not subscribe to the common view that "the more the feed the more the milk".
- Attempting to increase profit margin by cutting fodder costs, which he does in three ways:-
(a) By extending the area held under fodder crops. The cost of fodder makes this worthwhile even though it involves larger purchases of food for the family.
(b) By acquiring grazing land, a useful supplement to fodder crops.
(c) By improving feeding patterns to give a more balanced diet.

*159 241 (ii) - Land lies idle in the summer months since none is irrigated.
- Two rotations are in use,
(a) 1st yr: Wheat after manuring and thorough hoeing.
2nd yr: Sulla
3rd yr: Wheat
4th yr: Fallow
(b) 1st yr: Wheat
2nd yr: Sulla and Beans
3rd yr: Potatoes, Tomatoes, Melons after tractor plowing.
4th yr: Fallow

H. General.

*159 ● 43 829 - Completely dependent on the sale of milk to the M.M.U. at current prices of 5/6 to 6/- per gallon.
- Commercially much more sophisticated than the majority of Gozitan milk producers, this farmer runs a profitable concern.
- Has shown himself willing to cut losses by relinquishing land which he cannot work profitably.
[454] - At the same time makes considerable effort to add suitable land to his holding.
- Atypical in avoiding dispersion of effort over a variety of minor activity and in high degree of specialisation. This specialisation, however, renders him particularly vulnerable to any change in policy on the maintennnce of milk prices.

*159 234 CASE II: Ġużepp (A goats' milk producer with subsidiary cash cropping.)

Like Pawlu (Case I) Ġużepp is a herdsman. He has however fewer goats (25) and no cows as "there is no place to keep them". Accommodation is in fact one of the major problems facing him and thwarts his efforts to increase his herd and thereby his earning power. Late in 1957 some of his

[R 86]

*159 443 fluctuation. In such a situation he would find fixed annual repayments on loans for development much more difficult to meet.

SUMMARY OF CASE II

*159 (A goats milk producer with subsidiary cash-cropping).

A. Land.

[423] [427] Rents 10 separate plots, all dry land, in the Qawra Region.
Several landlords; total rent including house (£8.10.0) £35 p.a.

B. Utilisation.

[241] [311]
- Attention devoted mainly to fodders: wheat, barley, sulla.
- Grapes, some tomatoes and a few potatoes for sale.
- Various vegetables for home consumption.
- Grazing on waste and abandoned land.

C. Livestock.

[231]
- About 25 goats: 2 rams and 23 milkers all over 2 yrs. old.
- 20 hens, 5 pigs, 1 mule.

D. Capital.

[423] [454] [412] [409] [426] [427]
(i) No freehold land.
(ii) Little or no liquid reserve.
(iii) Equipment: usual hand implements; no mechanical equipment until 1957 when he bought a rotary cultivator at £350 with a government loan to be repaid at £62 p.a.
- Hires tractor and plow at 15 to 25/- per tonna.
- Borrows spray from brother.

E. Labour. (v. Table 4: Analysis of Work Record, 1957-58)

[464]
- No permanent hired labour.
- Help from wife and children (8 children, all below 14 yrs. of age, 4 at school).
- Employs a vine-grafter at 25/- a day when necessary (150 vines can be grafted in one day).
- Pays friends and relatives £1 daily for help at grape harvest.

F. Production and Sales.

[234] [43] [231]
(i) 22 goats (Nov. 1957) yield 3 gallons of milk daily which sells at 16/9 (5/7 per gall.).
- Keeps only milkers as no accommodation for rearing.
- Female kids sold for breeding fetch 7/- each, male kids sold to butchers when 15 days old fetch same price.
- Buys 3 to 5 goats annually to maintain herd - price in 1957 £10 each.
- 5 pigs includes 3 for meat, 2 for breeding; piglets weaned after 40 days and sold a week later.

[245] [434] [244]
(ii) Vine shoots bought from Govt. Farm at 28/- per 100. Grapes sold to vintners. Price takes no account of quality.
- In 1957 sold 30 qantar at 44/- per qantar = £66.
- Tomatoes, small quantities sold, but bulk of crop made into paste for home use.

G. Husbandry.

[245]
(i) - Much effort expended on vines. Pruned in January, when 2 yr. old shoots cut back.
- Grafting in February; new grafts produce small crop the same year.
- Sprayed, plowed (3 or 4 times) in May.

available", and normally delegates most of the work to a labourer who receives 24/- for an occasional day's work.

His own fields produce only a small part of the fodder required by the herd however and Wistin buys in sulla and other fodder "as it is needed". He does not buy regularly nor does he keep any record of his purchases or sales. In December, 1957, he was spending about 15/- per day on fodder other than sulla, on which he had spent £120 during the previous year, 1956. But of costs of production of milk he has little idea. His own labour does not figure as a 'cost'.

Wistin's family of eleven spends about £1 on food per day and eats potatoes and other vegetables and milk from the home farm to the value of a further 7/6d daily. The new demands on money are observed by both Wistin and his wife. She says that in her youth she "would never have dreamt of spending on clothes the money which her daughters are now spending". "In the old days, a girl went to the sea with her parents or on an occasional visit to Sant Anton - now they go to the cinema or to Valletta to buy shoes for the festa". One of the daughters is shortly to be married to a policeman and Wistin observes that the costs of the wedding and the dowry will be very considerable.

Wistin is a true herdsman. He has no interests which would upset his heavy routine of work. He is "not interested in festas" and his only relaxation is an occasional visit to the races at Marsa when his children are on holiday from school and able to take the goats out to graze.

His father was a labourer with the Services and had only a few fields, but Wistin began working for other herdsmen and then gradually built up his own herd to its present size, particularly in the past few years when, in common with many other Maltese and Gozitan herdsmen, he has ridden on the crest of the guaranteed-price wave. None of his children, however, shows any interest in goats and it is clear that both Wistin's wife and his brother-in-law (who has a half-share in the house occupied by Wistin and his family) are actively discouraging the children from planning to follow their father. Their main objection to herding appears to be the long hours and hard work entailed. Wistin is more than a little sad that the herd and farm which he has built up is likely to be broken up for lack of interest among his sons, for, as he says, "Once you leave the fields you never go back...."

CASE IV : Summary.

(A large-scale goats milk producer with some land.)

A. Land.

6 tmien in the Naxxar-Gharghur Hills region.

159 423 - 10 field plots in single block of 4 tmien (Rent £2.10.0.), and
- 7 field plots in single block of 2 tmien (Rent £3).
- Grazing ground on Defence Dept., wasteland.

B. Utilisation.

159 241 311 (i) At any one time about half the land - that of the deep-soil terraces - will be under potatoes with a few vegetables, and the remainder under barley and leguminous fodder.

(ii) The arable land tends to be neglected as a result of pre-occupation with livestock. The land is therefore deteriorating and as soil wash reduces soil-depth and water availability, peas and vetches are replacing less hardy crops. The most accessible fields in this hilly region are worked mainly to meet domestic needs.

C. Livestock.

159 231 234 90 goats including 75 breeders and 2 billies.
7 sheep for meat and cheesemaking.
This herd built up in farmers lifetime (c.50 years).

D. Capital.

159 423 (i) No freehold land.

(ii) A freehold village house joint possession of farmer and brother-in-law.

511 426 (iii) Receives C.A.R.E. [21] food gifts but the family standard of living is by no means poor. No debts except on intra-family loan basis.

E. Labour.

159 464 (i) Of the family of 11, two children are employed elsewhere and the remainder give occasional help with the stock and on the fields.

(ii) The fields are inaccessible to powered tools.
Hired labour for fieldwork - c.15-20 man days @ 24/- a day including mule and implements.

F. Production and Sales.

159 43 234 (i) Goats milk sales range from February minimum of c.100 lbs. per day to July maximum of 290 lbs. per day.
Annual sales of the order of 6,400 galls. @ average price 5/9d per gallon.
Gross income from milk sales c.£1800.
No accurate record of expenditure on purchased feed but total can be estimated as of the order of £500 p.a.
Net income probably not more than £800 p.a.

(ii) Manure sold to arable farmers during first half of year with net profit of £18.

(iii) Home produced and consumed food and milk valued at c.10/- a day.

G. Husbandry.

159 23 (i) Livestock feeding of traditional pattern sulla, beans and cake is more carefully regulated in relation to yields than in Case III. Considerable emphasis placed on grazing and on stock exercising.

(ii) Herd suffers fairly severely from abortion and the kids from various diseases - 5 out of 16 in 1956, 4 out of 12 in 1957.
No prophylactic or remedial measures except more careful feeding. Sells sick and old stock for slaughtering.

(iii) Tries to extend period of maximum production by prolonging mating period but prefers to rely on "natural" periodicity rather than on producing off-season high yields. Has high standards for yields and has a good record in local shows for billies and breeders.

158 434 H. General.

An example of a high-class village goats-milk producer.

*159 C. Livestock.
231 - 50 goats
234 - 2 cows, 3 calves, expecting to add 3 imported Friesians at c.£140 each.
- Chickens: buys unsexed chickens at 30-40/- for 50 in the hope of gaining egg producers. (Sexed females would cost 112/- for 50).

*159 D. Capital.
42 - The farmhouse and buildings are owned, though the exercise yards are rented (v. Map 8).
464 - Seems to have a small capital reserve but is unwilling to spend this on equipment, which he prefers to buy with the aid of a govt. loan.
- Some £1200 amassed during the war has now been largely spent, in part on the house but mainly on purchase of stock.
[409] - No mechanical equipment apart from a motor-pump bought for £68 in 1948.
- Tractor plows hired at £1 per tonna when necessary.

E. Labour.
*159 - No permanent hired labour, but two youths employed
464 at 10/- each per day, all found, for c.3 months of the year, and occasional hire of neighbours' sons.
- Full time workers: the farmer and his married son: no female labour is employed.
- The farmer is the only one of 7 brothers who have remained in farming.

*159 F. Production and Sales.
43 - Goats' milk to M.M.U. varies between 5 and 10 galls. daily, plus c.7 galls. cows milk. Probable income from these sources well over £1000 p.a.
- Against this must be set considerable expenditure on fodder, records of which are not kept. Bulls may cost up to £300 p.a. Straw may cost up to £125 p.a. Beans and cake at £3.10.0 and £2.18.6 per qantar respectively.
- Secondary small sources of income include "private sales" of milk, sales of vegetables and manure.
These incomplete accounts suggest a modest profit, but this has not prevented disappearance of war accumulated capital reserves. (See D: Capital).

G. Husbandry.
*159 - Feeds according to yield. Large scale purchases of
231 fodder necessary, despite quite careful attention
234 to holding.
- Feeds vegetables (including potatoes) when these are cheap owing to glut; when this is done, bean ration is reduced.
- Rations are doubled for cows in calf.
- Cows are exercised in yard but never grazed.
- Goats grazed on waste and fodder fields.

H. General.
*159 - When asked whether he considered himself to be herds-
433 man or farmer, replied that he might be regarded as a "general dealer" in crops and animals.
- In fact his enterprise is overwhelmingly directed towards production of milk and is yet another dependent on the guaranteed milk price.
- Fields are definitely secondary, though well-tended and are primarily for the provision of fodder.
- This farmer appears to make a modest profit from his enterprise, but has no appreciation of the costs involved.

159 241 (ii) The intensive summer utilisation of the land for unirrigated summer vegetables is characteristic of this region. Tomatoes and brassicas are dominant. Vetches and beans are grown as catch-crops in small patches. This type of cropping sequence i.e. potatoes, vegetables, cereals, sulla, is typical of well-developed Maltese mixed-farming.

159 23 234 C. Livestock.

(i) c.33 head of cattle including 20-22 milch cows, 1 stud bull, 2 bull calves for fattening.
(ii) 2 goats, 1 mule, 1 pony, 12 hens.
(iii) The cattle-herd has been built up since 1940.

159 [472] D. Capital.

(i) The accepted leader of this partnership enterprise is typical of the more commercially minded and successful Maltese farmers in that he was prepared to discuss anything except financial details. The amount of capital of property and even the details of land-holding of this "kulak" class is known accurately by nobody.

[407] [343] [454] (ii) Equipment includes 1 van, 1 hand tractor, 2 water pumps and two large cattle byres. At local values, farm buildings and mechanised equipment represents over £8,000 investment.

[426] (iii) This partnership prefers to indulge in small-scale family borrowing and lending rather than to use official-and controlled- credit facilities.

[423] (iv) Two village houses and over 3 tmien of land are owned freehold.

159 464 407 427 E. Labour.

(i) Partnership labour force totals 6 full-time farm-workers (5 brothers and 1 adult son).
(ii) A youth employed full-time with cattle.
(iii) All plots are deep-plowed by crawler tractor every fourth year at cost of £1 per tomna.
(iv) On this relatively level land a varying fraction of cereal reaping is done by machine. Machine cutting costs £1 a tomna, hand harvesting £3 a tomna. Hand cutting is less wasteful of straw but these farmers have a rare appreciation of the importance of the time-element in their complex economic and land-use system.

159 433 F. Production and Sales.

(i) The only certain information obtainable is of sales of cows milk. During 1957 minimum daily sales averaged 283 lbs. during May, and the maximum of 350 lbs. during March was almost matched in August and the following January. This constancy of sales based on a firm intention to allow production to vary but slightly from an average of 30 gallons a day from 20 milch cows is rarely found in Malta and is typical only of a few technically advanced and commercially minded farmers.

159 43 (ii) The partnership although possessing a stud bull usually buys cows in milk (preferably Ayrshires), a 'good' yielder costing c.£210. Breeding and raising heifers if regarded as unprofitable.

(iii) The main sales of arable produce consist of summer cauliflowers and tomatoes. In an effort to avoid the usual glut of summer brassicas considerable importance is attached to extending the season of production into autumn and winter. Price variations are considerable e.g. In 1956 cauliflower prices dropped to 1/- a sack while in 1956 they had risen to 20/- a sack.

*159 ●43 (iv) Potatoes are grown regularly for the home market in spite of price variations - reported as ranging between 50/- per qantar in 1956 and 8/4 in 1957.

(v) Home grown fodder and forage makes up c.80% of non-concentrate feed. Other crops make members of the partnership self-sufficient in foodstuffs (at a high level of consumption).

(vi) Annual sales of wine-grapes c.40 qantar.

(vii) The response to general variations in yields and prices is to maintain the general pattern of production. The syndicate has enough capital to survive periodic losses and therefore deliberately ignores fluctuations. The only alterations made in a planned cropping sequence result from natural hazards e.g. if a late crop of sulla fails as a result of poor germination, a rapid switch may be made to balck vetch.

* 159 242 G. Husbandry. General standards are good.

(i) Soil maintaining rotations are carefully and consciously practised. Thus leguminous fodders are regarded as essential in arable farming.

(ii) Fertiliser application is heavy:
- Organic manure is applied for the first two years of a four year cycle at a rate of c.60 sacks per tomna.
- Sulphate of Ammonia is applied to all the fields each year at a rate of 15-20 sacks per tomna.
- They do not regard the idea of green manuring with any favour although they use dry vegetable refuse mixed with dung.

(iii) They are very conscious of minor regional differences in soil and climate and regard the parcellated holding of selected land much more important than convenience of working a consolidated holding e.g.
- 'earliness' is associated with coastal situations and "early tomatoes will not come up in Żebbuġ".
- soils are classified as follows:
  - 'hamrija' (red) is good for all crops
  - 'abjad' (white) for cereals and tomatoes but not for potatoes.
  - 'sewdina' (grey) for sulla and tomatoes.
  - 'tafli' (clay) poor for green crops.
  - 'hirbi', an intermediate soil, easy to work.

The differences between these types and the presence or absence of nodule beds, saline layers etc. are held to be sufficient justification for rental differentiation as between fields and parts of fields.

This articulate consciousness of environmental variations even in this case reinforces conservatism and much more importance is attached to such natural 'controls' than to crop strains.

* 159 232 (iv) Cattle are well housed and fed according to yield. Very vague about balanced feeding and rely on traditional greens, beans, hay and cake. Nevertheless in the spokesman's own words they are aiming at 'better management of the cattle rather than more animals'.

* 159 829 232 242 (v) In some ways, the high standards achieved using traditional techniques are proving a barrier to further technical advances, e.g. the cattle are relatively free from disease and therefore more trust is placed in the expertise of the syndicate than in the 'book-knowledge' of a vet., e.g. whatever experts may say, any crop innovation must be demonstrated successfully and in the <u>immediate</u> locality.

*159 [464] to find farm labourers even at 25 to 30/- a day.
- Occasional hired help at harvest time.

F. Production and Sales.

[434] - Main profit from tomatoes, grapes and potatoes. Subsidiary income from vegetables.
[433] - Attempts to space out production and sales by using
[251] many different varieties and storing, e.g. potatoes until prices are high.

G. Husbandry.

*159 241 43 (i) - Potatoes: three crops annually on best land.
- Artichokes: replanted every 4 years.
- Tomatoes: seed beds attached to irrigated plots carry many varieties.
- Melons: has experimented successfully with seed sent by relative in Canada.
- Cauliflowers: 4 crops between August and March, earliest sold before heads are formed.

(ii) - Manure brought from Luqa; 4 truckloads - £22 plus £8 for carriage will last one year. Also uses town refuse.
- Copper sulphate spray for potatoes, paraffin spray as weed killer.

(iii) - Has recently added to holding by reclamation of wasteland. Constructed a 2-tmion field, soil for which cost £150 (20 truckloads) and transport £50. This field returned £60 worth of potatoes in first year, £35 of tomatoes in the second. In autumn 1957 was preparing to repeat the process.

(iv) - Irrigated land rested under sulla every fourth year.

H. General.

*159 242 [463] [465] An unusually proficient part-timer cushioned by income from position as camp caretaker (£5.12.0 per week when camp not fully occupied). His job appears to leave him plenty of time to devote to his holding. He is willing to experiment and take risks, though experiments are concealed from his neighbours until proved successful. Has a lively appreciation of how to obtain best returns from his produce; very much au fait with market conditions.

*159 434 [451] Keeps fairly careful accounts and, according to his own statements, makes a profit of £250 p.a. from farming:

Receipts from produce	£450
Labour costs	£ 50
Seeds, manure, transport	£150
Profit	£250

Value of produce consumed by family £30.

His two jobs have made him appreciably more prosperous than his neighbours. Without the subsidiary income from caretaking his financial position would be extremely precarious. As it is he is able to amass a considerable capital reserve. [454]

PART 2. Heavy Tractors and Maltese Farming.

*159 157 829 CASE XIV : Ġanni (A young, progressive contract-plowman, with heavy tractors and other mechanized equipment.)

Ġanni is a bachelor in his late twenties. In most respects he is quite atypical of Maltese farmers today but his work and attitudes illustrate most vividly the economic, technical and social problems facing agriculture and the rural community in Malta.

His youth, his knowledge of written and spoken English, his first hand acquaintance with Australia, the United Kingdom, Italy and other countries, his belief in mechanization as the way to make money in Maltese farming, his social